

Fig. 1A

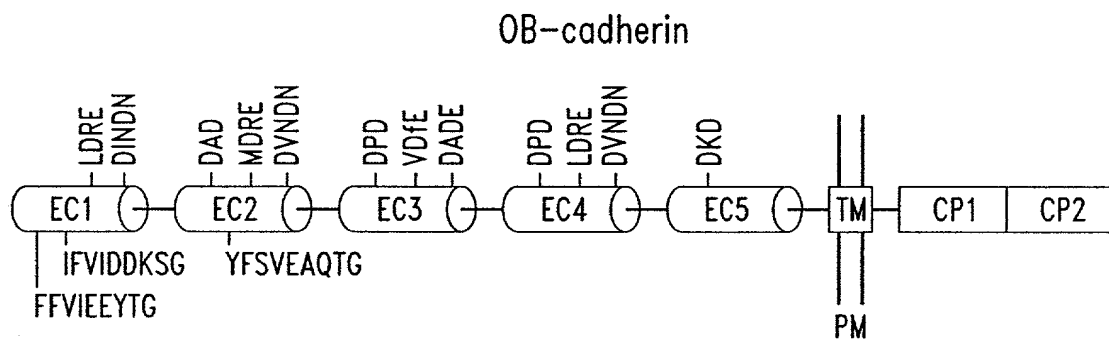


Fig. 1B

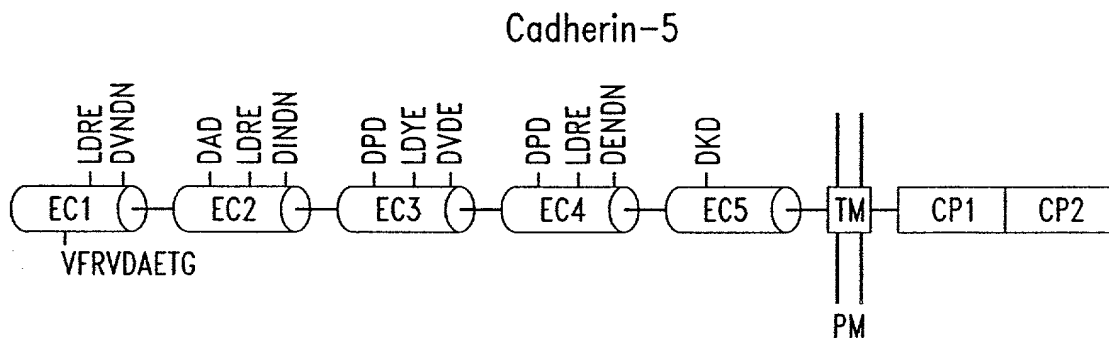


Fig. 1C

4,416,032 "6-33-00001"

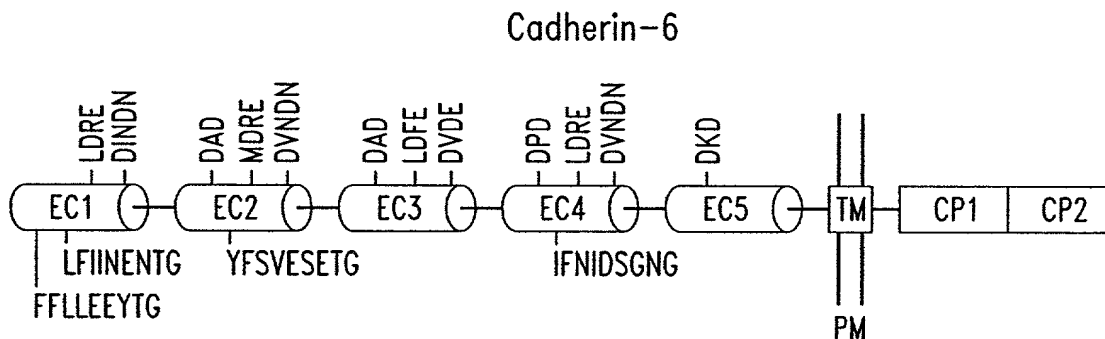


Fig. 1D

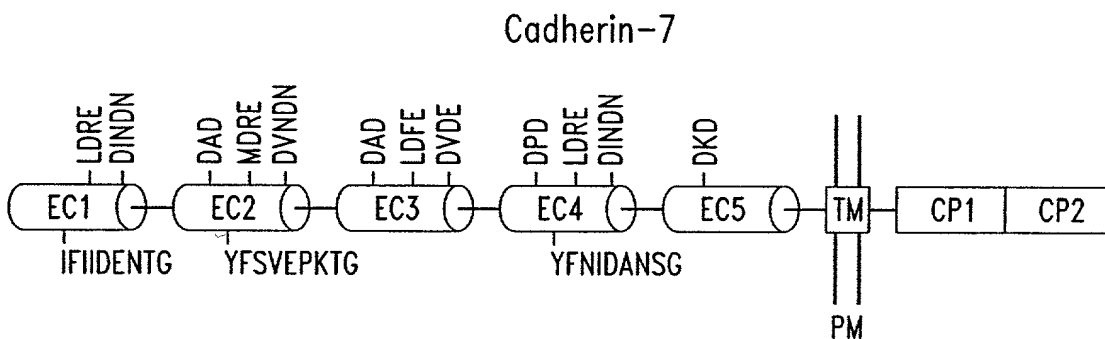


Fig. 1E

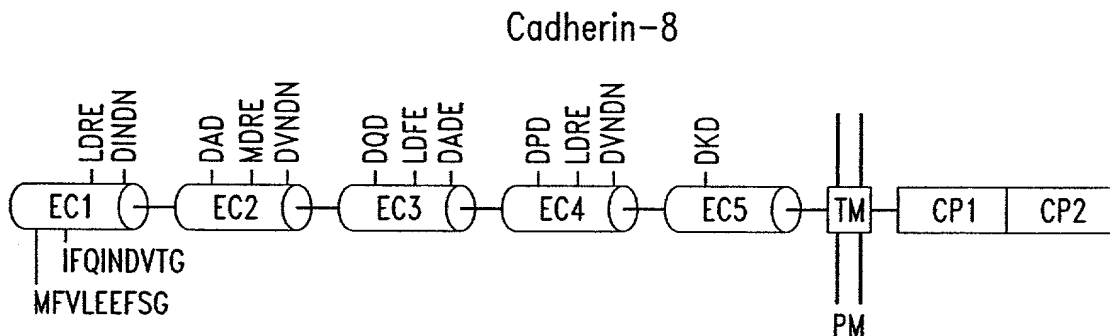


Fig. 1F

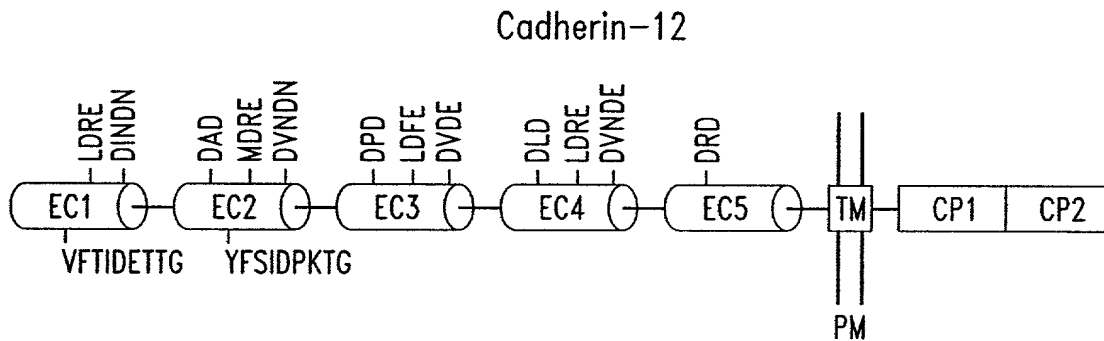


Fig. 1G

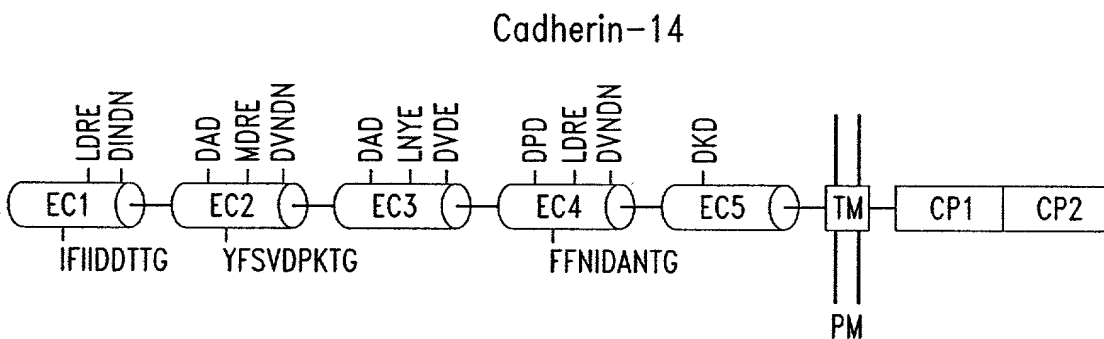


Fig. 1H

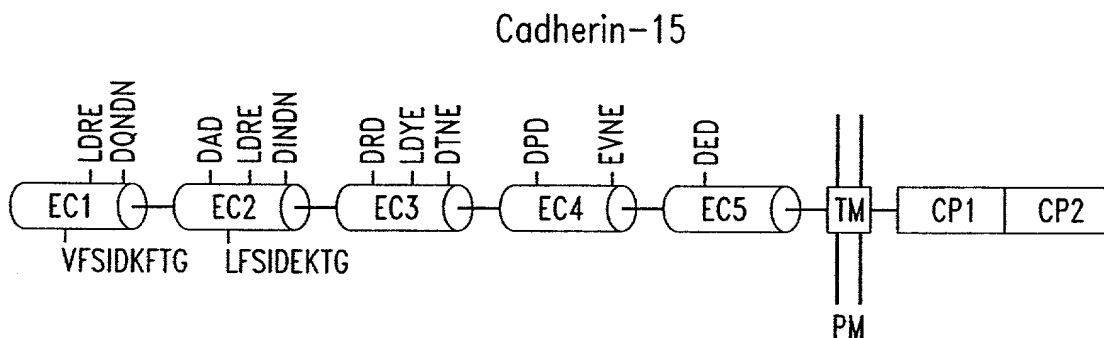


Fig. 1I

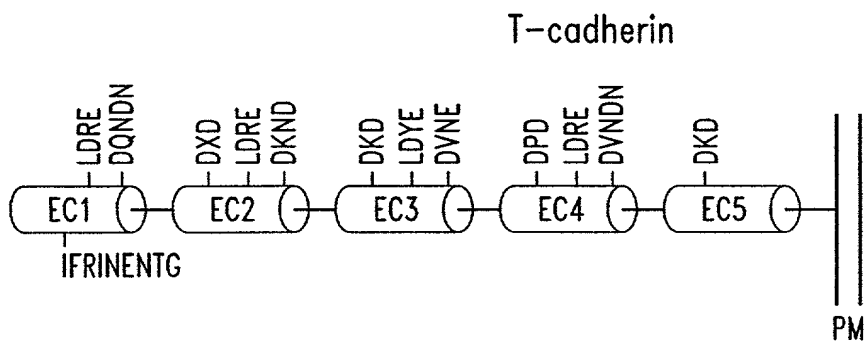


Fig. 1J

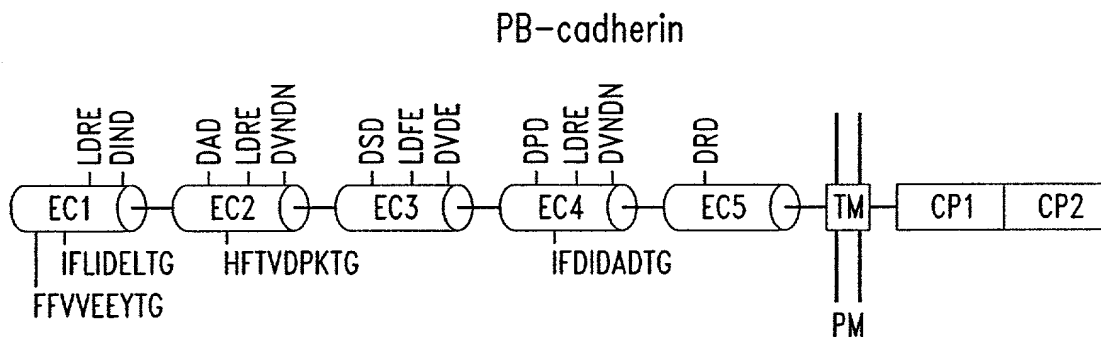


Fig. 1K

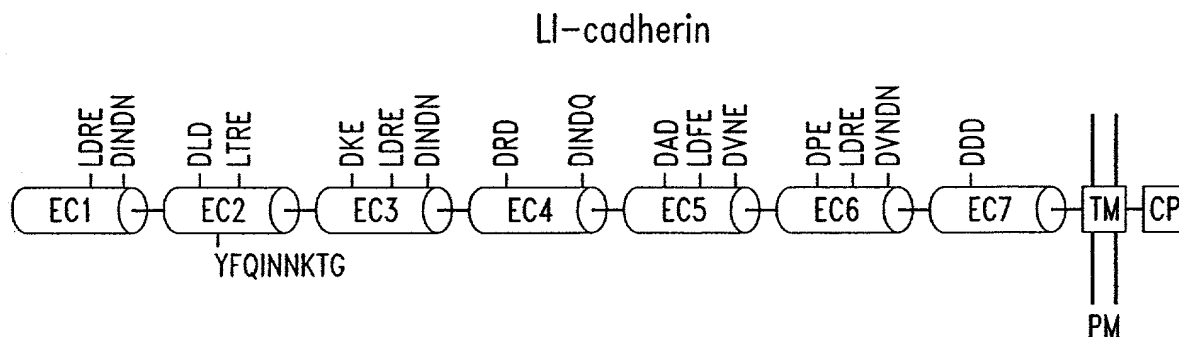


Fig. 1L

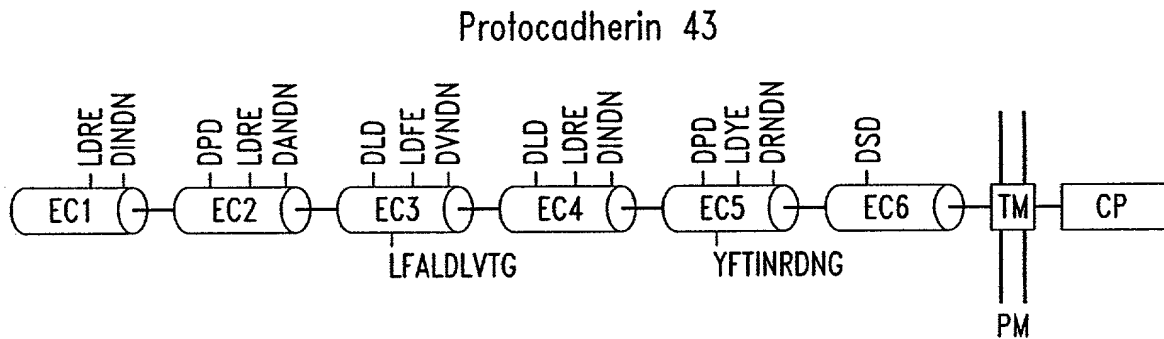


Fig. 1M

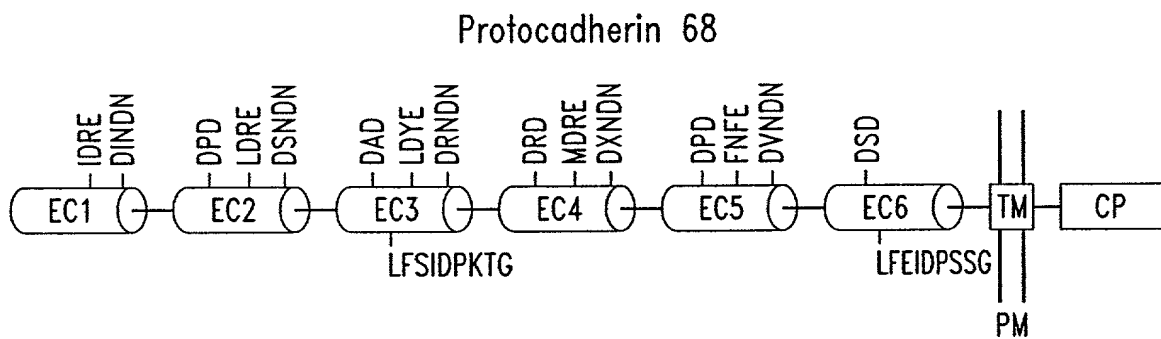


Fig. 1N

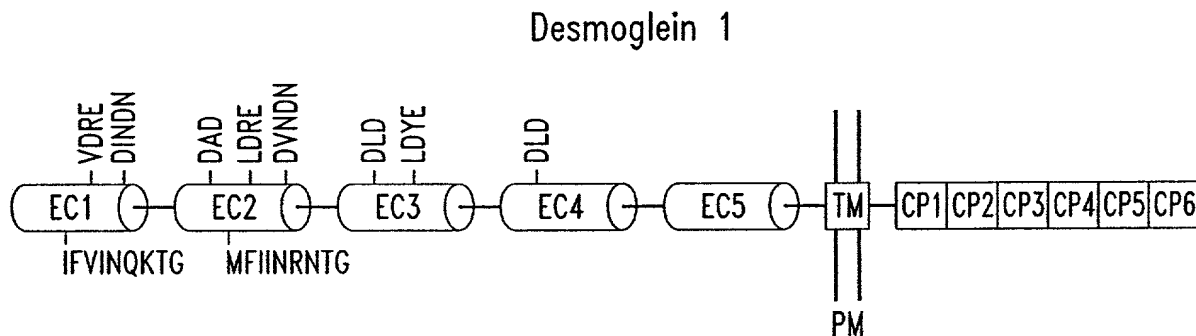


Fig. 10

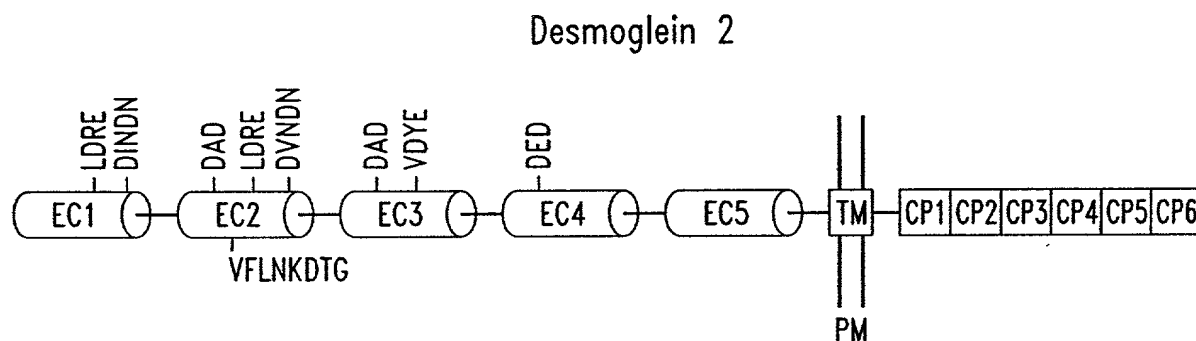


Fig. 1P

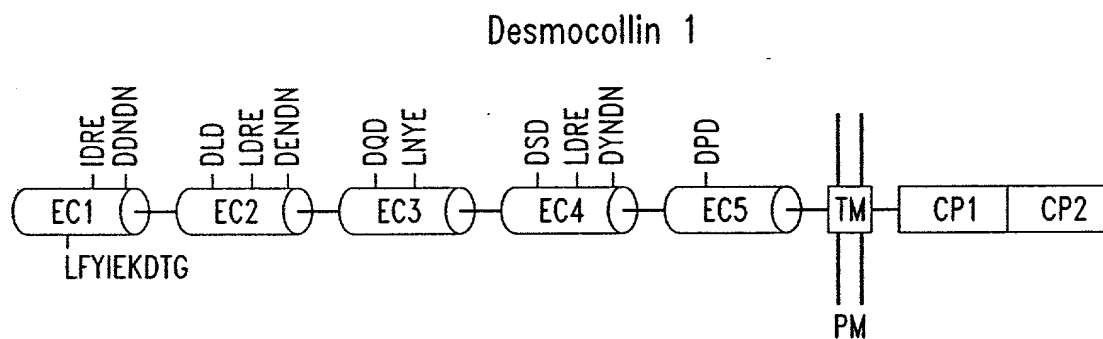


Fig. 1Q

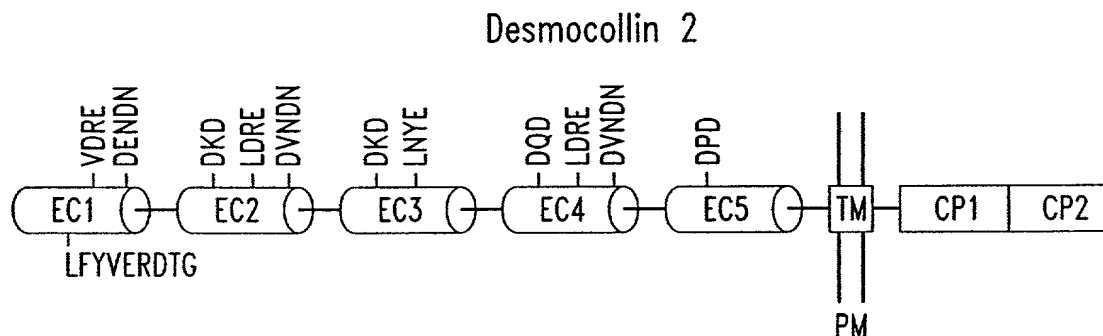


Fig. 1R

Desmocollin 3

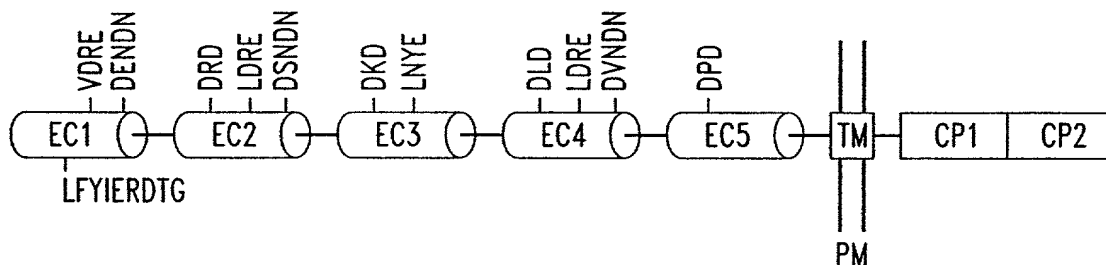


Fig. 1S

Desmocollin 4

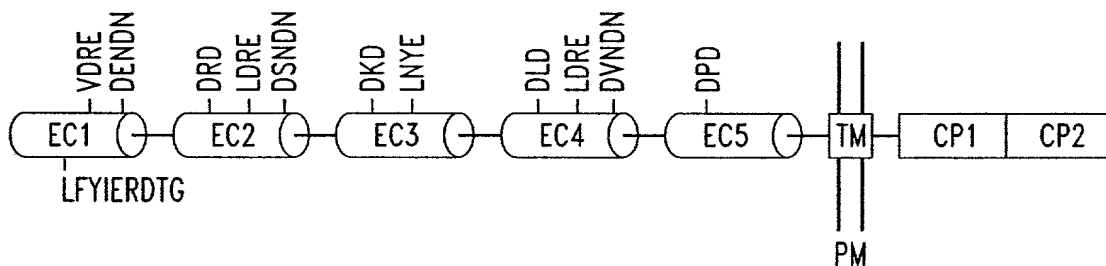


Fig. 1T

Cnr1

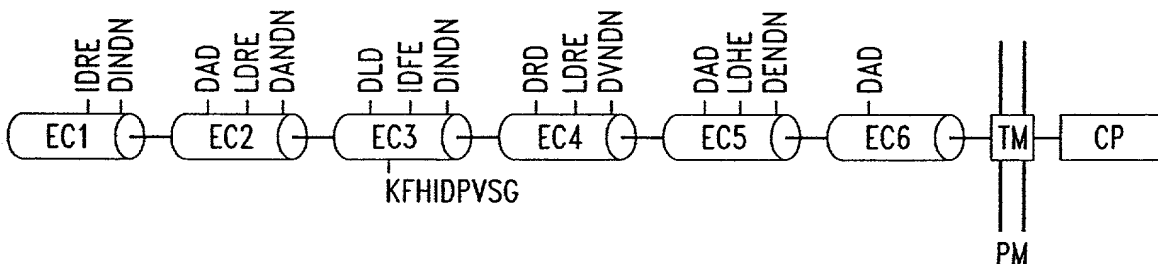


Fig. 1U

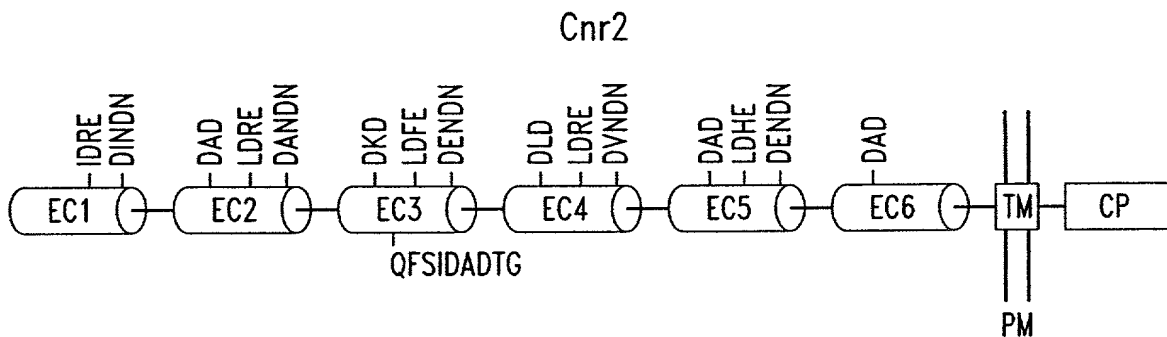


Fig. 1V

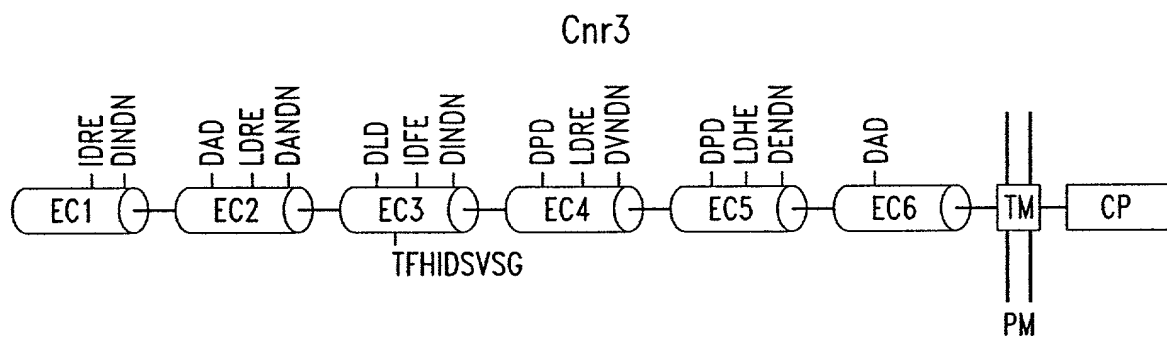


Fig. 1W

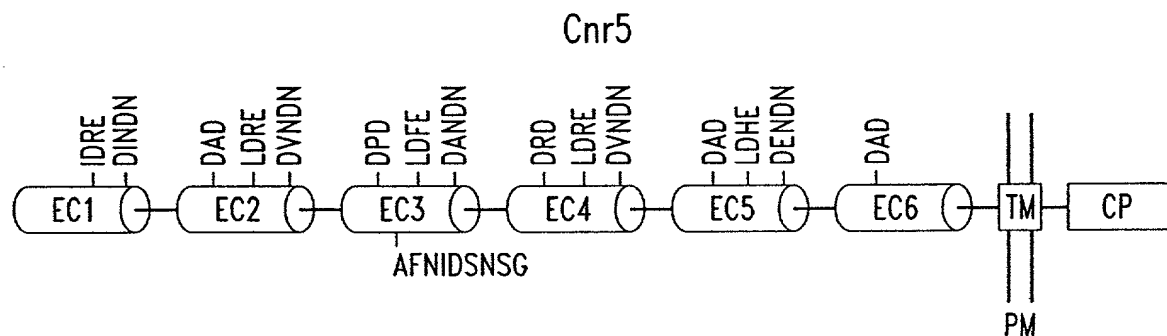


Fig. 1X

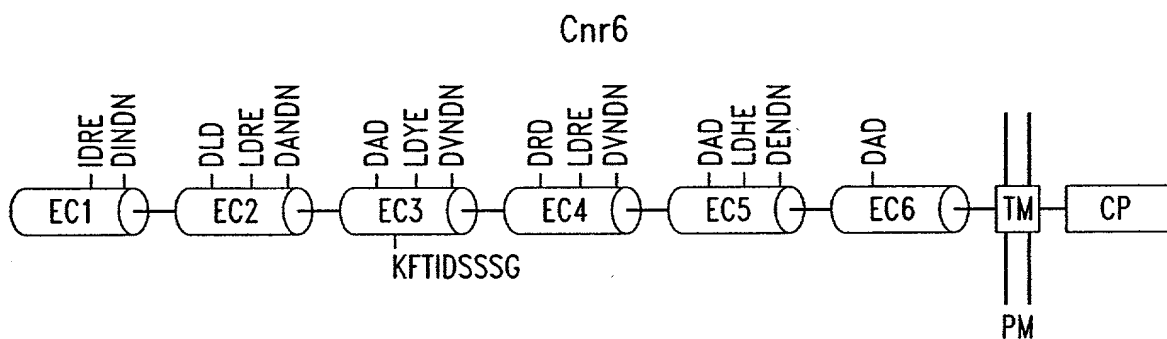


Fig. 1Y

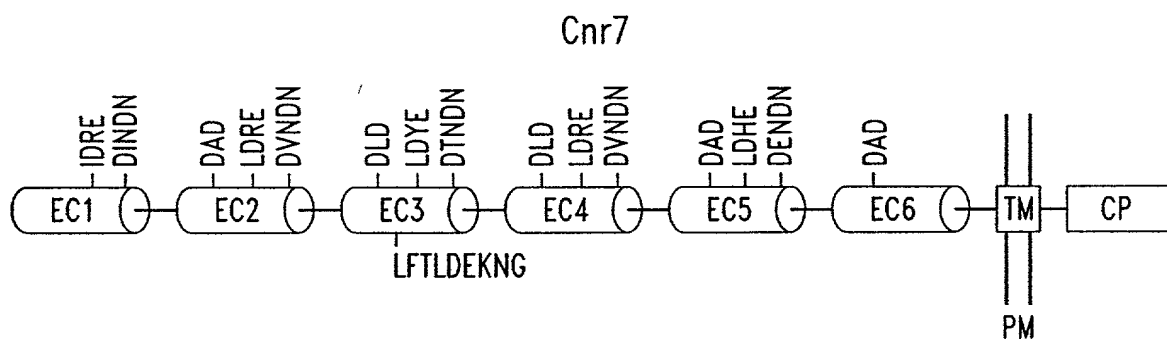


Fig. 1Z

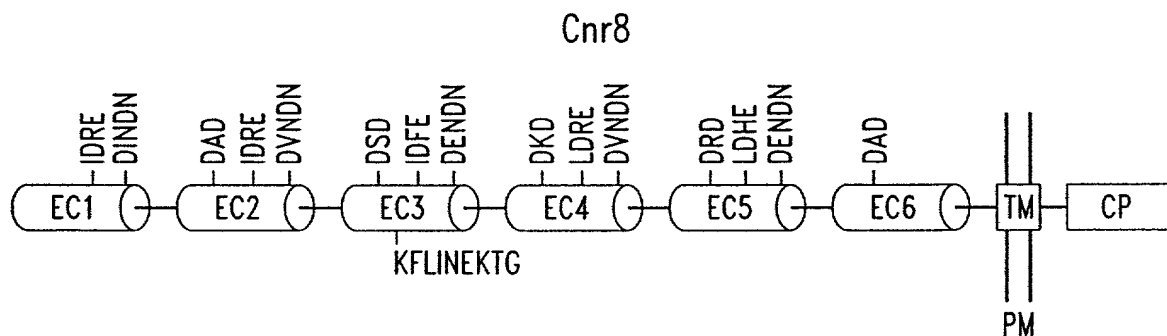


Fig. 1AA

Sheet 6 of 6

Obcad	EC1	RSKRGWVWQFFVIEETGDPVVLVGRLHSDIDSQD---GNIKYILSGEGAG---TIFVIDKSGNI-HATKTLDRERAQ---YTLMAQAVDRODT---NRPLEPSEFIVKIQDINDNPPRF
Obcad	EC2	----LHETHANVPERS-NVGTSVIQVTASDADDPTYGNSAKLVSYILEGQD---YFSVEAQGTGIRIALPNWDREAKEE---YHVVIOAKDMGG-HMGLSGTTKVITITLTDVNDNPPKF
Cad5	EC1	RQKRDIWQNHIDEKNTSLPHVVGKIKSSVSRKN-----AKYLLKGEYVG---KVRVDAETGVV-FAIERLDRENISE---YHLTAVIVDKOTG---ENLETPSSFTIKVHDVNDNPPVF
Cad6	EC1	RSKRSWVWQFFLEETGSDYQVVGKLSHSDQDRGD---GSLKYILSGDGAG---DLFIINENTGDI-QATKRLDREKPV---YTLRAQAQINRRT---GRPVESEFIIKHIDINDNEPIF
Cad6	EC2	----TKEYVATVPENS-DVGTFWQVITADDDPTYGNSAKVWYSILQGQD---YFSVESETGIKIALINWDREIREQ---YQVVIQAKDMGG-QMGLSGTTVNIITLTDVNDNPPRF
Cad6	EC4	----SKLAYILOIREDA-QINTTIGSVTAQDPDAAR---NPVKYSVDRHTMD---RIFNIDSGNSI-FTSKLLDRETLN---HNITVIATENN---PKQSSRVPLVYKVLVDNDNAPEF
Cad7	EC1	RTKRSWVWQFFVLEEMGSDPLYGKLHSDVDKGD---GSIKYILSGEGAS---SIFIIDENTGDI-HATKRLDREKPV---YTLRAQAQHDRLT---NKPVPESEFVIKIQDINDNEPKF
Cad7	EC2	----LDGPTYTAGVPENS-PVGTSVWQVITADDDPTYGNSARWYSILQGQD---YFSVEPKTGIIKTALPNWDREAKQD---YLLVIQAKDMVG-QNGGLSGTTSVTITLTDVNDNPPRF
Cad7	EC4	----TSRLYSWVSEAA-KVGTIIGTVAABDPDASN---SPVRYSIDRNTDLE---RYFNIDANSVI-TTAKSLDRETNV---HNITVLAWESQN---PAQIGRGYVAITITLINDNAPEF
Cad8	EC1	RSKRGWVWQFFVLEESGPEPILVGRLHTDLDPGS---KKIKYILSGDGAG---TIFQINDVTGDI-HAIKRLDREKAE---YTLTAQAVDMET---SKPLEPSEFIIKIQDINDNAPEF
Cad12	EC1	RVKRGWVWQFFVLEEVGSEPYVVGKLSHDLKGE---GTVKYILTSGDGAG---TVFTIDETGDI-HAIRSLDREKPF---YTLRAQAQVDIET---RKPLEPESEFIIKIQDINDNEPKF
Cad12	EC2	----LDGPVYATVPENS-PVGAIVLQVATDADDPTYGNSARWYSILQGQD---YFSIDPKTGIVIRIALPNWDREIVEQD---YQVLQAKDMGG-QLGGLAGTTVNIITLTDVNDNPPRF
Cad14	EC1	RPRKRWVWQFFVLEEHMGPDPQVVGKLSHNSDKGD---GSVKYILTGEAG---TIFIIDDTGDI-HSTKSLDREKTH---YVLHAQAIDRRIT---NKPLEPESEFIIKIQDINDNAPEF
Cad14	EC2	----TDGPYIVTVPENS-DMGTSVLQVATDADDPTYGNSARWYSILQGQD---YFSVDPKGTGIVIRIALHNDREAREH---YSWVIQAKDMAG-QVGGLSGTTVNIITLTDVNDNPPRF
Cad14	EC4	----SMPSYLMVEYENA-KIGTVVGTVLAQDPDSTN---SLVRVFINVVEDD---RFFNIDANTGTIRT-TKVLDRREETPW---YNTVTASEIDN---PDLLSHVTVGIRVLDVNDNPPEL
Cad15	EC1	----RVRRANWIPPIVSENHKLPLVPLVQIKSDKQD---LGSVITYSGPGVDEEPRGVFSIDKFTGKV-FLNMLDREKTRD---FRLRAFALDLGG---STLEDPTDLEIWWVDQNDNPPAF
Cad15	EC2	----LQEAFTGRVLEGA-VPGTYVYTRAEATDADDPTDPAALRFSILQGSPE---LFSIDELTGEIRTVQVGLDREVAV---YNLTLQVA-D--MSGDGLTATASAITLDDINDNAPEF
Tcad	EC1	-RQKRSIVVSPILIPENQRQPFPRDVGKVDSDRPSKFRLTGKGVQDEPKG---IFRINENTGSV-SVTRILDREVIAT---YQLFVETTDVNG---KTEGVPLEVIIVDQNDNRRIF
P8cad	EC1	RVKRGWVWQFFVWEETGTEPLYVGKLSHSDDEGD---GTIKYILSGEGAG---TIFLIDELTGDJ-HATERLDREKTF---YTLRAQAQDRAT---NRLLEPESEFIIKIQDINDSEPRF
P8cad	EC2	----LHGPYIGSVAELS-PTGTSVMQVMSADDDPTYGSSARLVSYLDGEH---HFTVDPKGTGIVRTAVPDLDRSQER---YEWVIQATDMAG-QLGGLSGTTVTVVTDVNDNPPRF
P8cad	EC4	----RPPSGLLEVQEDA-QVGSVGVVVTARPPDAAN---RPVRYAIDRSDLE---QIFDIDADTGAI-VTGKGLDRETAGW---HNITVLAWEADN---HAQLSPASLRIRILDVNDNPPEL
L1cad	EC2	----LQSKYEGSVIRQNS-RPGKPFLVYNATDLDDPATPNGLYYQIVTQLPMINWVYFQINNKGTGAI---SLTREGSQELNPAKNPVLVTSVKDMGGQSENSFSDTTSVDIIVTENTWKAPAP
Pcd43	EC3	----NQSLYRARVPGCC-TSGTRVWQVLAIDLDEGP---NGEIIYSFGSHNRAGVR-QLFALDLVTGML-TIKGRDLFEDTKL-----HEIYIOAKDKGA---NPEGAHCKVLVEVVDVNDNAPEI

Fig. 2A

Patent # 6,333,000

Pcd43	EC5	-----SQSSDYVYIEENW-LPGAPILNLVNDPDPQON-ARLSFFLLEQGAETGLVGRVFTINRNGIV-SSLVPLDYEDRRE-----FELTAHSDGGT-----PVLATNISWIFVTRNDNAPQV
Pcd68	EC3	-----EAPSYLVVELPENT-PLGTWVIDLNATDADEGP-----NGEVLVSFSSYVPDRIV-ELFSDIPKTLI-RVKGILDYEENGW-----LETDQARDLGP-----NLIPAHCKVTVKLIIDRNDNAPSI
Pcd68	EC6	VLPTLQNDTAELOVPRNAGLYLVSTVRALDSDFGE-----SGRLTYEIVDGNDD-----HLFEIDPSSGEI-RTLHPFWEDVTPV-----VELWKVTDHGKPT-----
Dsg1	EC1	ROKREWIKFAAACREGEDNSKRNPIAKIHSDCAAN-----QQVYTRISGVGIDPPYGFVFNQKTGEI-NITSIVDREVTF-----FIYCRALNSMG-----QDLERPLELRVRVLDINDNPPVF
Dsg1	EC2	-----SWATFAQIIEENS-NANTLVMTLNATDADEPNULNSKIAFKIRQEPSDP-----MFIINRNTGEIRTMNINFLDREQYQG-----YALAVRSDRDG-GADGMSAECENIKILDVNDNIPYM
Dsg2	EC2	-----TQDVFGSVFELS-AAHTLVKINATDADEPNTLNSKISYRIVSLPAYPP-----VFYLNKOTGEIYTTSVTLDREHSS-----YTLTVEARDNGEVTDKPVKQAVQIRILDVNDNTPWV
Dsc1	EC1	-----RWAPIASLMENSLGPPFQHVQOIQSDAQN-----YTIFYSISGPGVDKEPFLNYIEKOTGDI-FCTRSIDREKYEQ-----FALYGYATTADG--YAPEYPLP-LIIKIEDNDNAPY
Dsc2	EC1	-----RWAPIPCSMLENSLGPFLFLQQVQSDTAQN-----YTIYYSIRGPGVDQEPNLFYVERDTGNL-YCTRPVDREQYES-----FEIIAFATTPDG--YTPELPLP-LIIKIEDNDNYPPI
Dsc3	EC1	-----RWAPIPCSMQENSLGPPFLFLQQVESDAQN-----YTVFYISGRGVDKPELNLFYIERDTGNL-FCTRPVDREYDV-----FDLIAVASTADG--YSADLPLP-LPIRVEDENDNHPV
Dsc4	EC1	-----RWAPIPCSMQENSLGPPFLFLQQVESDAQN-----YTVFYISGRGVDKPELNLFYIERDTGNL-FCTRPVDREYDV-----FDLIAVASTADG--YSADLPLP-LPIRVEDENDNHPV
Cnr1	EC3	-----DRSLYTVKLPENV-PNGTLWKVWASDLDEGV-----NGDIMVSFSDISPNWK-YKFHIDPVSGEI-IWKGYIDFEECKS-----YEILIEGIDKQG--LPLSGHCKVTVQVEDINDNYPEL
Cnr2	EC3	-----QHPEYEVRIEENS-DNGTTVIRLNASDKDEGT-----NSAISYSFNRLVPPKTL-EQFSIDADTGEI-ITQGNLDFEQVDV-----YKTHVDATDKGH-----PPMWGHCTVLVKVLDENDNVPQI
Cnr3	EC3	-----DRAIYRVKLVENA-RNGTWWIRLNASDLDEGS-----NGQILYSFAADVSPKTE-ATFHIDSVSGEI-KVNGKIDFEETNL-----WKIQAEAVDKGS-----PPMFGHCTLLIEVLDINDNAPKI
Cnr5	EC3	-----DRFVYKVKVLEDA-LNGTLVINLNATDPDEGI-----NGDIYFSRRPVSPAUV-HAFNIDSNSGEV-RTKGLLDFFEEIKL-----YEIPVEAVDKGN-----IPMTGHCTLLVELLDVNDNAPEV
Cnr6	EC3	-----DKSIYVRLLENT-PNGTLVVKLNASDADEGI-----NKEILYFFSNLVLDVK-SKFTDSSSGEI-KVKGELDYEDCKV-----YEINIDAVDRSA-----FPLAGHCKIIVKLVNDVNDNVPKM
Cnr7	EC3	-----DHLEYKVRIMENA-AKETLVITLNTATDLDEGA-----NGQLVYSLMS-IKPTGRH-LFTLDEKNGEL-RWNGTLDYEENKL-----YEIEVLATDKGT-----PPMWGHCVLVEILDNDNSPEV
Cnr8	EC3	-----DRSVYEVKMYENQ-ENKTLVINLNATDSDEGI-----NKEVEYSSSLASSIIR-OKFLINEKTGEI-KINGAIDFEESNN-----YEIHVDATDKGY-----PPMVAHCTVLVEILDENDNAPEI

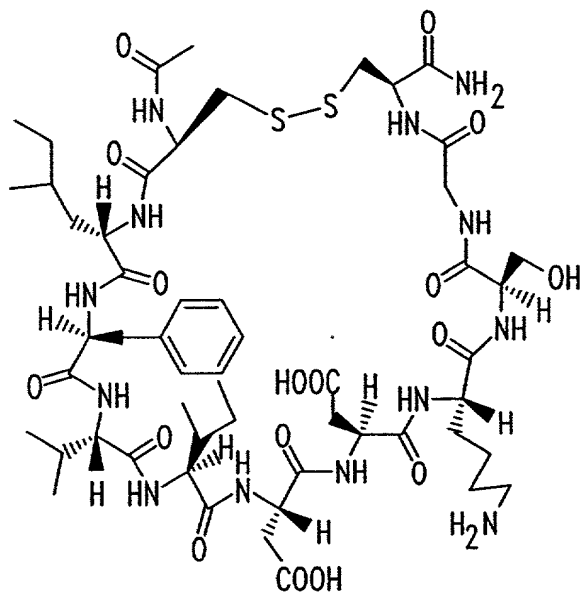
Fig. 2B

Human GWVWNQFFVIEEYTGPDPLVGR LHSDIDSGDGNIKYILSGEGAG
Mouse GWVWNQFFVIEEYTGPDPLVGR LHSDIDSGDGNIKYILSGEGAG

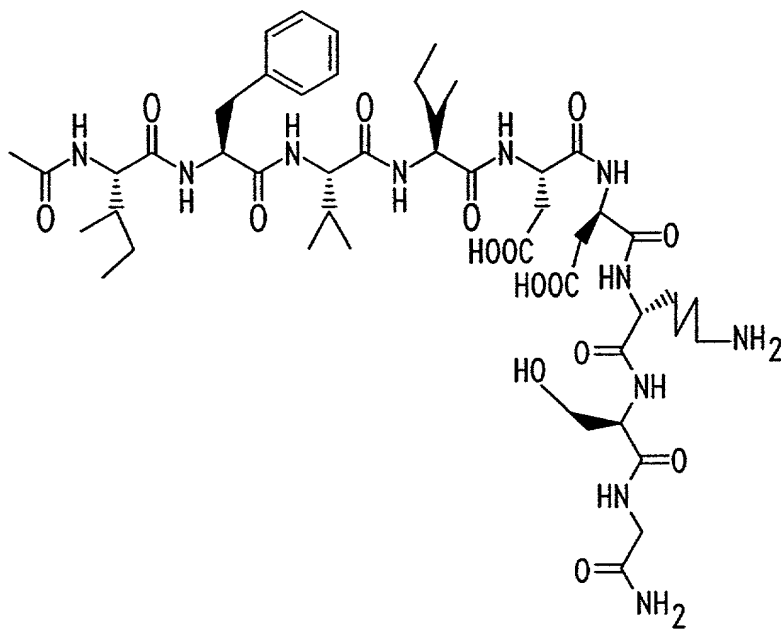
Human TIFVIDDKSGNIHATKTL DREERAQYTLMAQAVDRDTNRPLEPPS
Mouse TIFVIDDKSGNIHATKTL DREERAQYTLMAQAVDRDTNRPLEPPS

Human EFIVKVQDINDNPPEF
Mouse EFIVKVQDINDNPPEF

Fig. 3



N-Ac-CIFVIDDKSGC-NH₂



N-Ac-IFVIDDKSG-NH₂

Fig. 4A

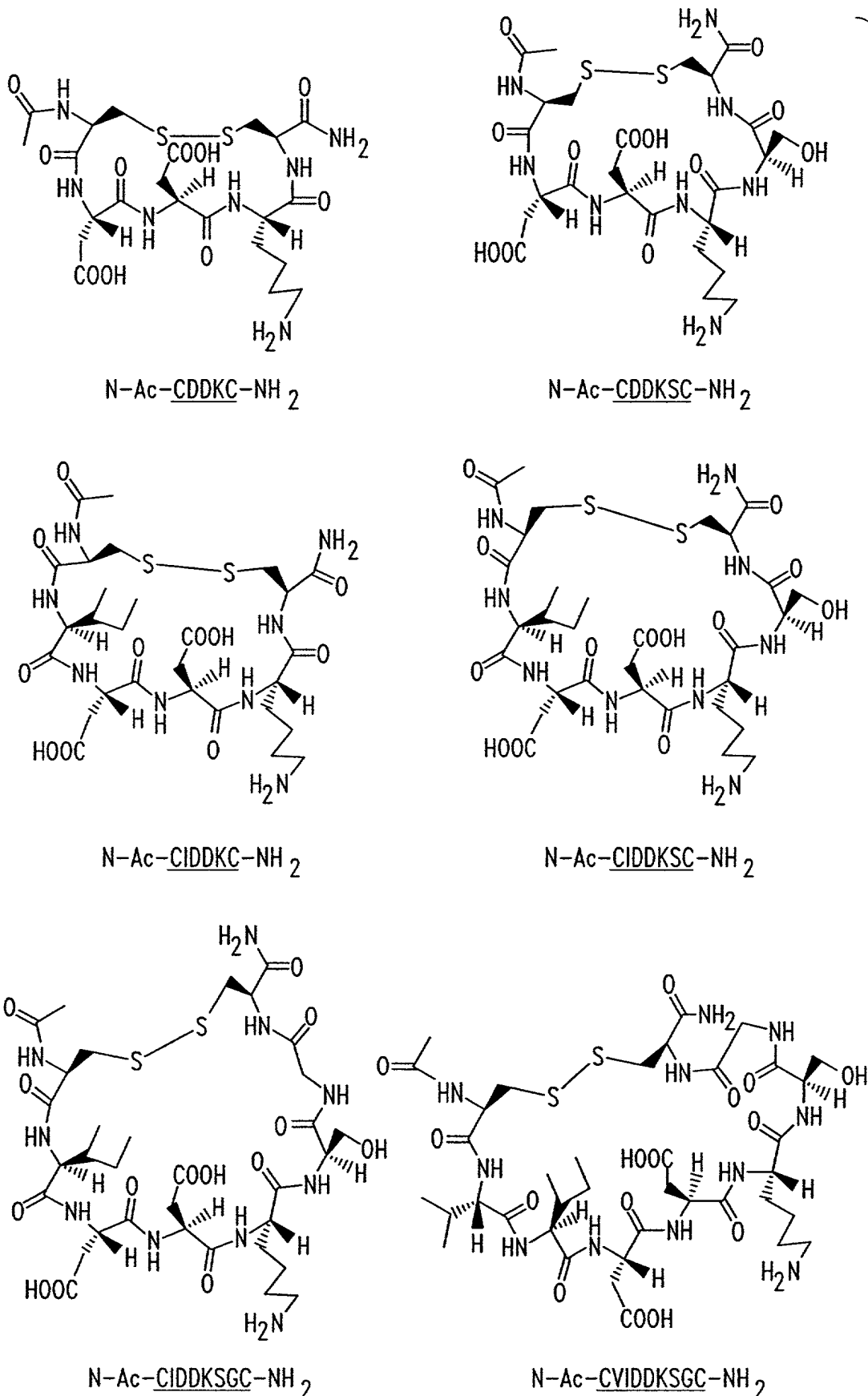


Fig. 4B

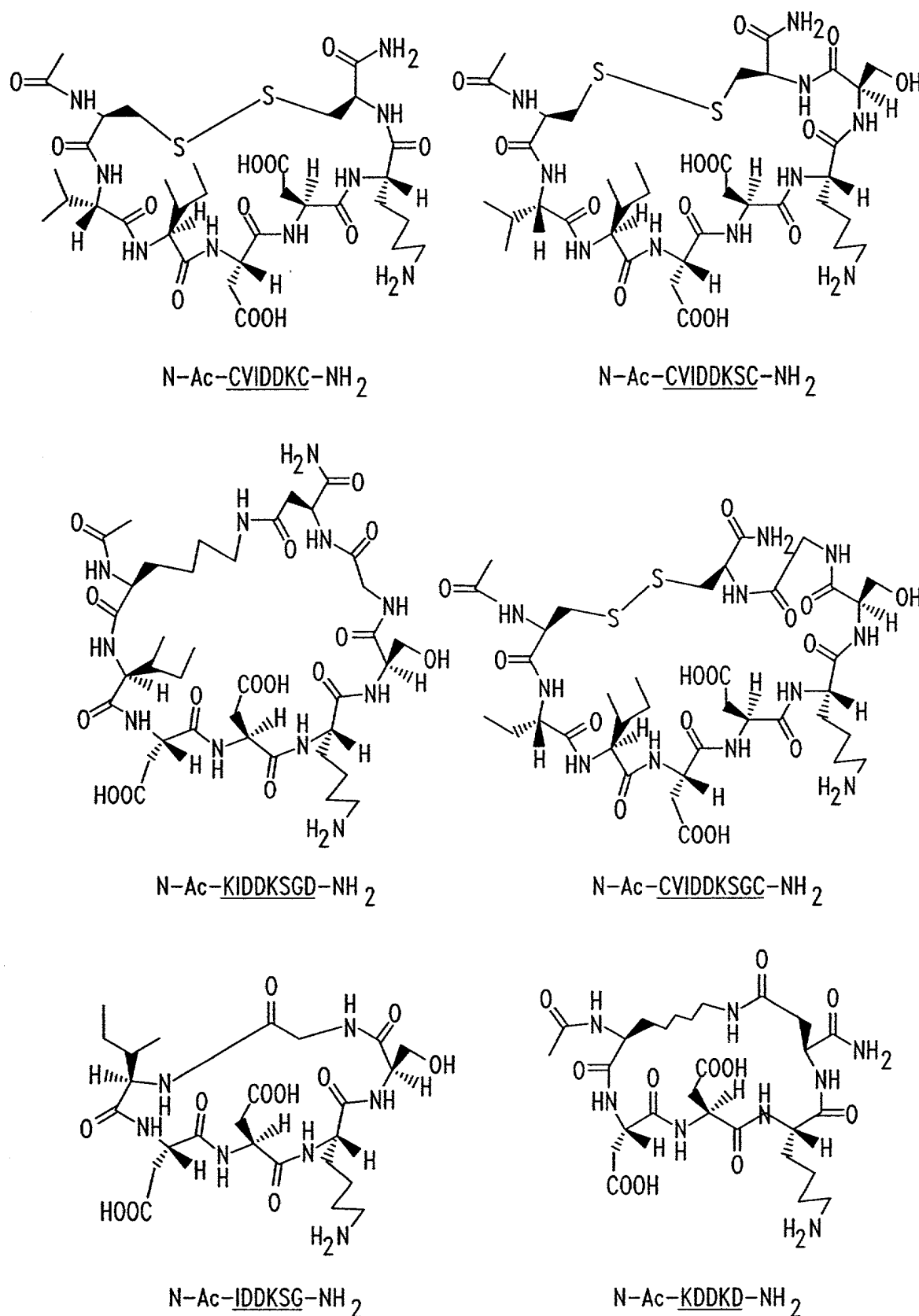


Fig. 4C

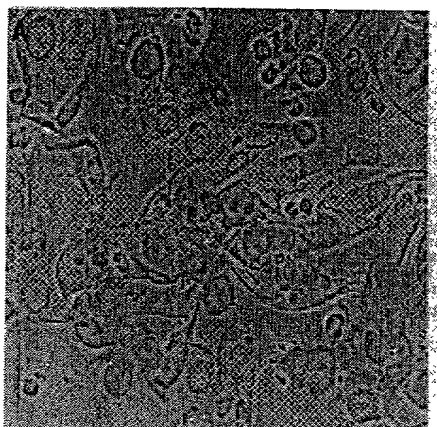


Fig. 5A

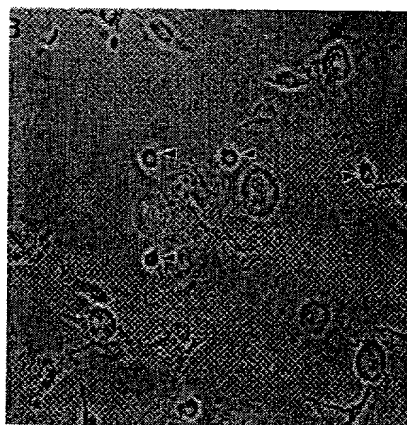


Fig. 5B

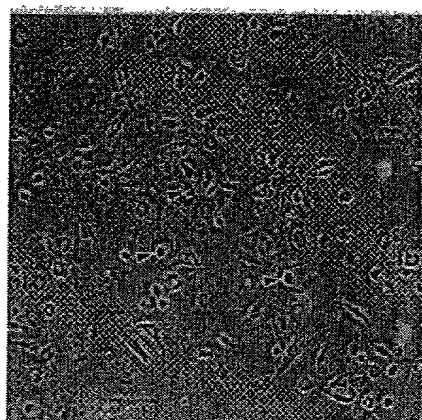
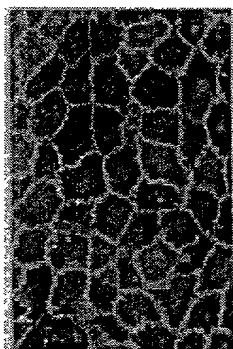


Fig. 5C



Control

Fig. 6A



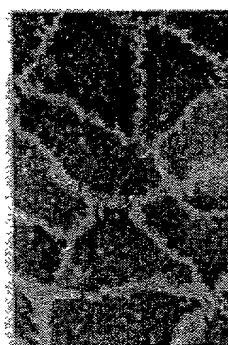
Control

Fig. 6B



H-VFRVDAETGD-OH

Fig. 6C



H-VFRVDAETGD-OH

Fig. 6D



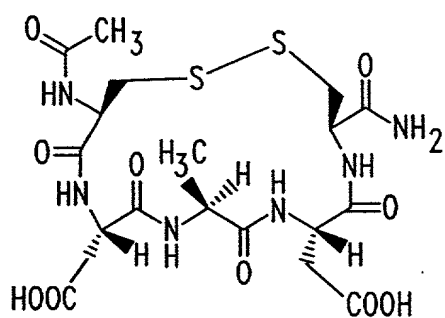
N-Ac-VFRVDAETGD-NH₂

Fig. 6E

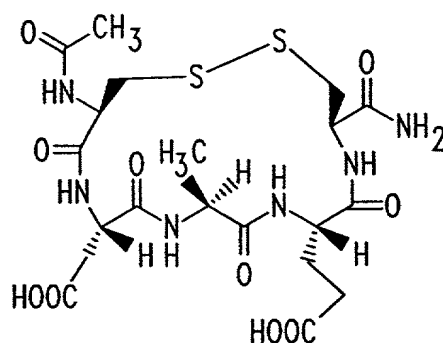


N-Ac-VFRVDAETGD-NH₂

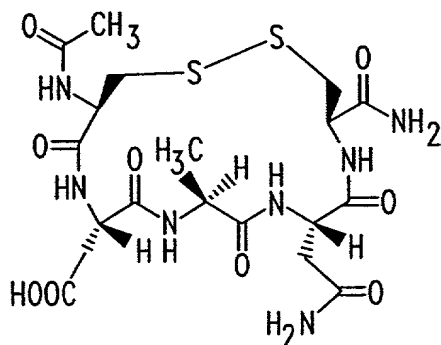
Fig. 6F



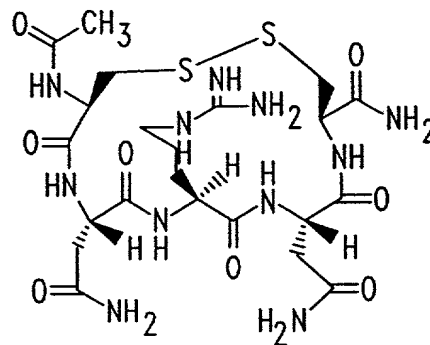
N-Ac-CDADC-NH₂



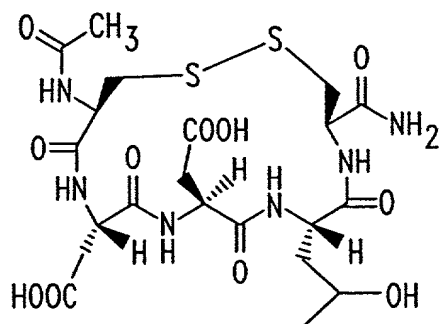
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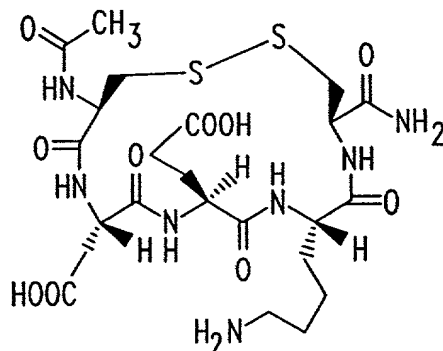
N-Ac-CDANC-NH₂



N-Ac-CNRNC-NH₂

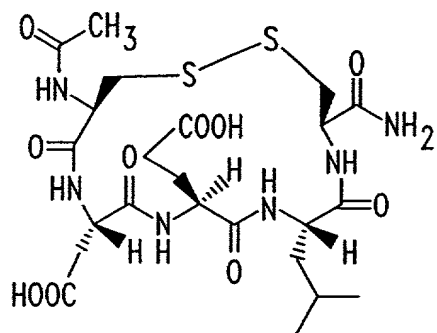


N-Ac-CDDTC-NH₂

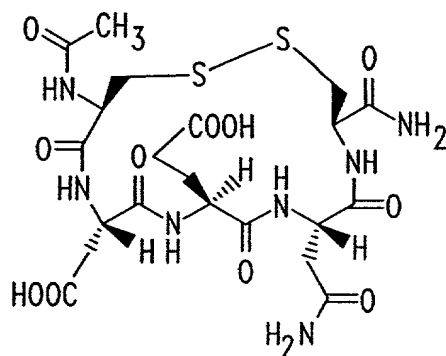


N-Ac-CDEKC-NH₂

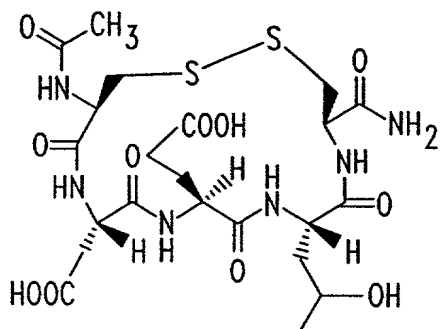
Fig. 7A



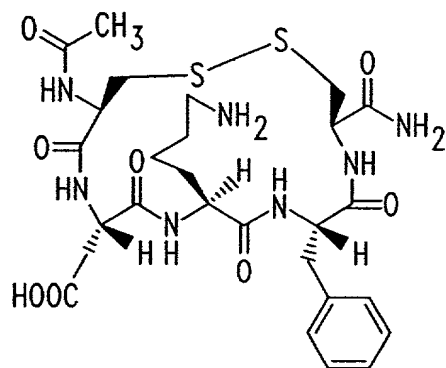
N-Ac-CDELC-NH₂



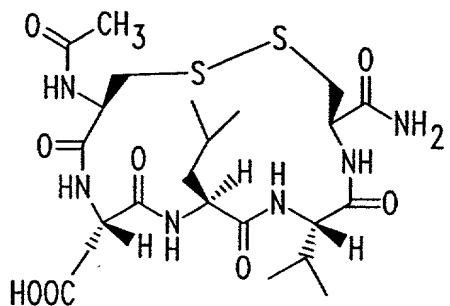
N-Ac-CDENC-NH₂



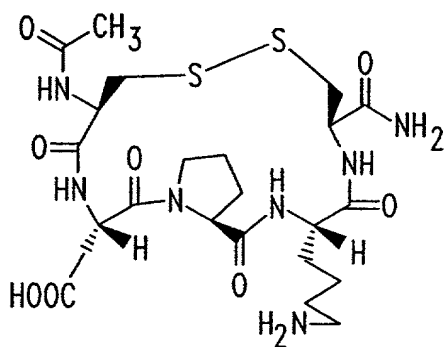
N-Ac-CDETC-NH₂



N-Ac-CDKFC-NH₂



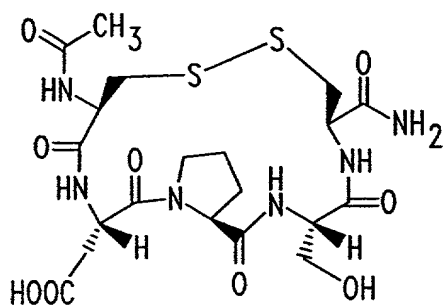
N-Ac-CDLVC-NH₂



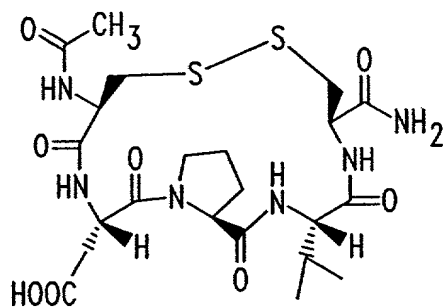
N-Ac-CDPKC-NH₂

Fig. 7B

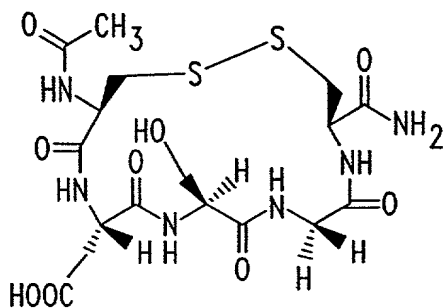
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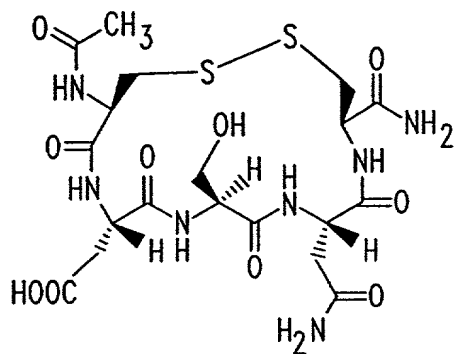
N-Ac-CDPSC-NH₂



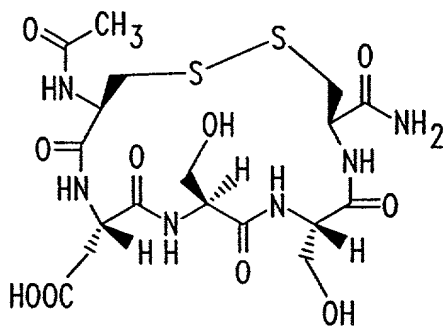
N-Ac-CDPVC-NH₂



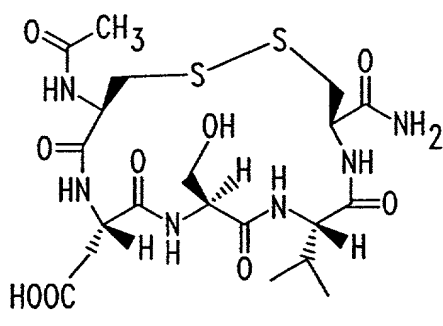
N-Ac-CDSGC-NH₂



N-Ac-CDSNC-NH₂

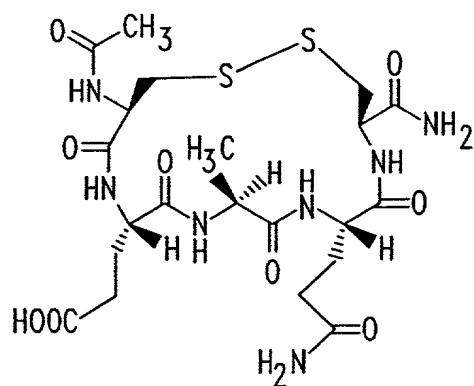


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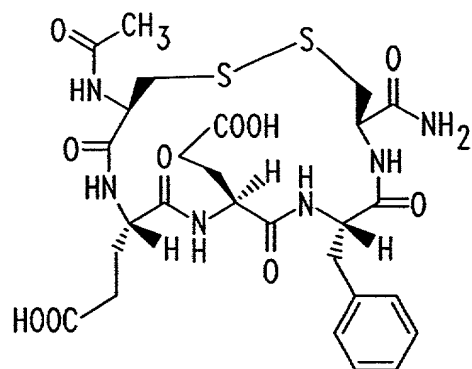


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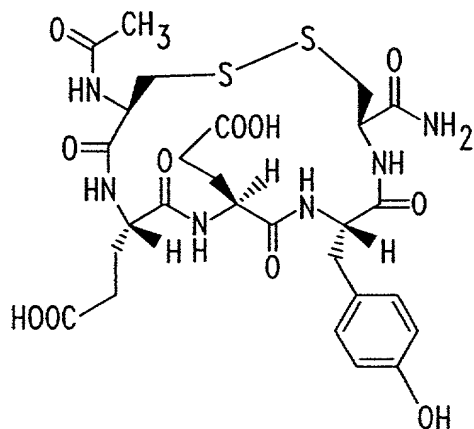
Fig. 7C



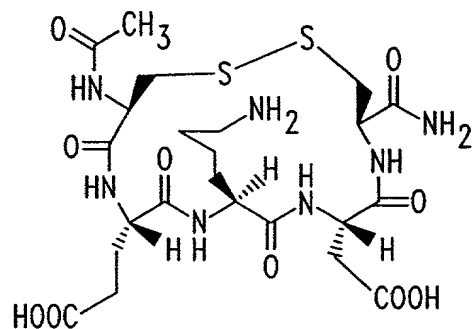
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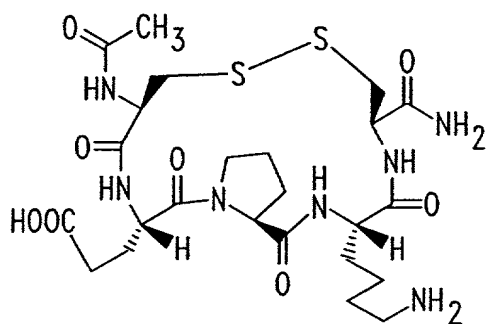
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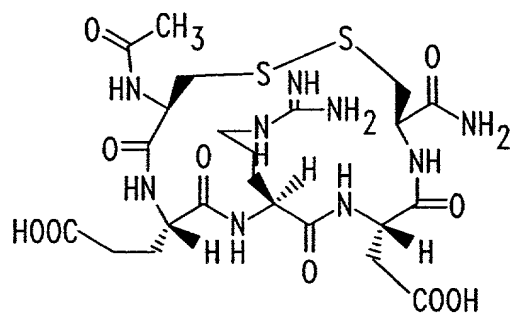
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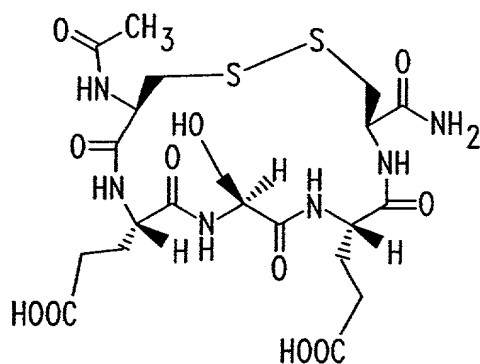


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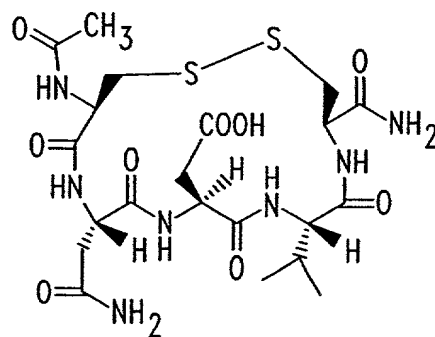


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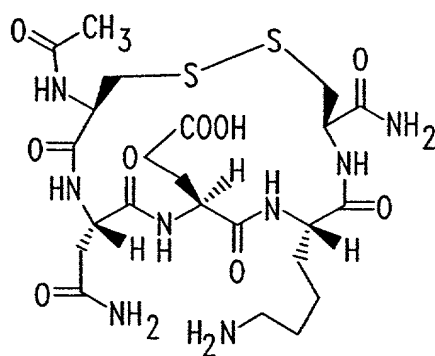
Fig. 7D



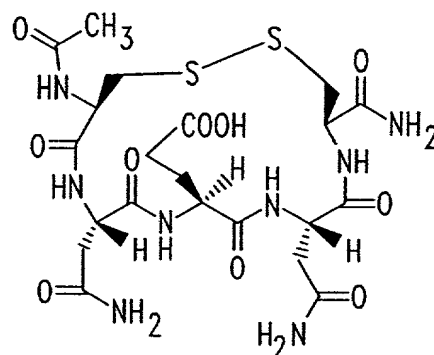
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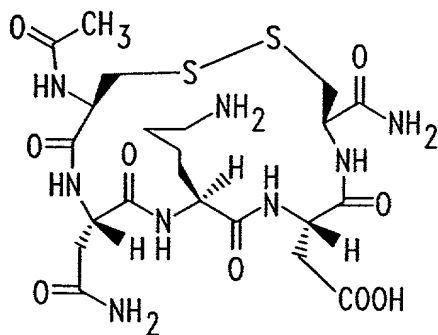
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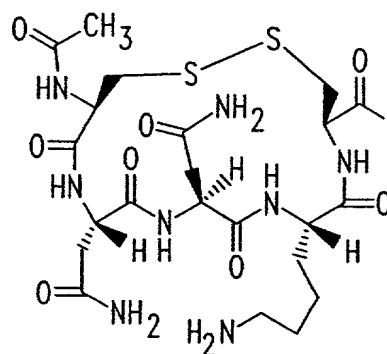
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N-Ac-CNENC-NH₂



N-Ac-CNKDC-NH₂



N-Ac-CNNKC-NH₂

Fig. 7E

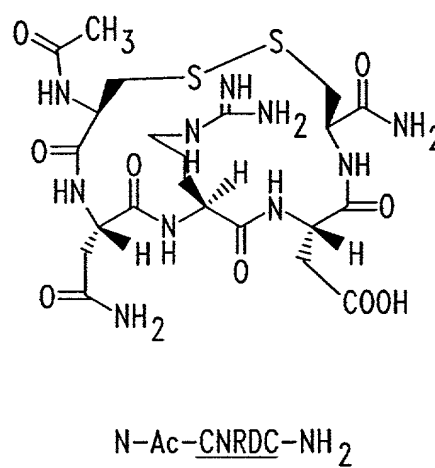
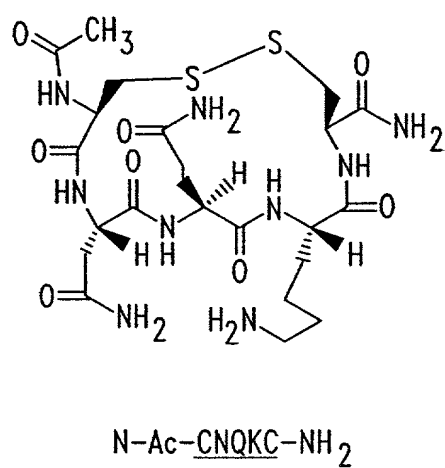


Fig. 7F